Matteo Nori

Fellow

Knowledge Group: Government, Health and Not for Profit
Research Domains: Space Economy
Teaching Domains: Big & Small Data, Data Analysis Process, Descriptive
Analytics, Time Series Analysis, Predictive Analytics

matteo.nori@sdabocconi.it

Biography

Matteo Nori is an astrophysicist with extensive expertise in data science and analysis, specialized in the physical and statistical modelling of complex systems. He holds a double MSc degree from Sorbonne University (France) and Politecnico di Torino (Italy), earned in July 2015, and completed his PhD in Astrophysics at Alma Mater Studiorum University of Bologna (Italy) in March 2019.

From 2019 to 2023, Matteo Nori served as a researcher at Bologna University and as a Postdoctoral Associate at New York University Abu Dhabi (UAE). During these years, he pursued in his investigation of the physical models of Dark Matter and Dark Energy and their implications for galaxy formation and evolution through numerical means.

Matteo Nori is collaborating with the SEE Lab since February 2024. Thanks to his scientific and technical skills, he is involved both in the research efforts, in particular revolving around numerical simulations and projections of present and future satellite populations, as well as in the design, development and automatization of the data analysis of the SEEData dataset.

Articles in Scholarly Journals

No Catch-22 for fuzzy dark matter: testing substructure counts and core sizes via high-resolution cosmological simulations
ELGAMAL, S., M. NORI, A. V. MACCIÒ, M. BALDI, S. WATERVAL, "No Catch-22 for fuzzy dark matter: testing substructure counts and core sizes via high-resolution cosmological simulations", Monthly Notices of the Royal Astronomical Society, 2024, vol. 532, no. 4, pp. 4050-4059

Fuzzy Aquarius: evolution of a Milky-way like system in the Fuzzy Dark Matter scenario

NORI, M., A. V. MACCIÒ, M. BALDI, "Fuzzy Aquarius: evolution of a Milky-way like system in the Fuzzy Dark Matter scenario", Monthly Notices of the Royal Astronomical Society, 2023, vol. 522, no. 1, pp. 1451-1463

NIHAO – XXVIII. Collateral effects of AGN on dark matter concentration and stellar kinematics
WATERVAL, S., S. ELGAMAL, M. NORI, M. PASQUATO, A. V. MACCIÒ, M. BLANK, K. L. DIXON, X. KANG, T. IBRAYEV, "NIHAO – XXVIII. Collateral effects of AGN on dark matter concentration and stellar kinematics", Monthly Notices of the Royal Astronomical Society, 2022, vol. 514, no. 4, pp. 5307-5319

Sparse Identification of Variable Star Dynamics
PASQUATO, M., M. ABBAS, A. A. TRANI, M. NORI, J. A. KWIECINSKI, P. TREVISAN, V. F. BRAGA, G. BONO, A. V. MACCIÒ, "Sparse Identification of Variable Star Dynamics", The Astrophysical Journal Supplement, 2022, vol. 930, no. 2, pp. 161

Scaling relations of fuzzy dark matter haloes – I. Individual systems in their cosmological environment
NORI, M., M. BALDI, "Scaling relations of fuzzy dark matter haloes – I. Individual systems in their cosmological environment", Monthly Notices of the Royal Astronomical Society, 2020, vol. 501, no. 1, pp. 1539-1556

Dynamic zoom simulations: A fast, adaptive algorithm for simulating light-cones
GARALDI, E., M. NORI, M. BALDI, "Dynamic zoom simulations: A fast, adaptive algorithm for simulating light-cones", Monthly Notices of the Royal Astronomical Society, 2020, vol. 499, no. 2, pp. 2685-2700

Lyman forest and non-linear structure characterization in Fuzzy Dark Matter cosmologies
NORI, M., R. MURGIA, V. IRŠIČ, M. BALDI, M. VIEL, "Lyman forest and non-linear structure characterization in Fuzzy Dark Matter cosmologies", Monthly Notices of the Royal Astronomical Society, 2019, vol. 482, no. 3, pp. 3227-3243

AX-GADGET: a new code for cosmological simulations of Fuzzy Dark Matter and Axion models
NORI, M., M. BALDI, "AX-GADGET: a new code for cosmological simulations of Fuzzy Dark Matter and Axion models", Monthly Notices of the Royal Astronomical Society, 2018, vol. 478, no. 3, pp. 3935-3951

Unveiling the nature of the unidentified gamma-ray sources VI: gamma-ray blazar candidates in the WISH survey and their radio properties
NORI, M., M. GIROLETTI, F. MASSARO, R. D'ABRUSCO, A. PAGGI, G. TOSTI, S. FUNK, "Unveiling the nature of the unidentified gamma-ray sources VI: gamma-ray blazar candidates in the WISH survey and their radio properties", The Astrophysical Journal Supplement, 2014, vol. 212, no. 1, pp. 1-8

Unveiling the nature of the unidentified gamma-ray sources. III. Gamma-ray blazar-like counterparts at low radio frequencies
MASSARO, F., R. D'ABRUSCO, M. GIROLETTI, A. PAGGI, N. MASETTI, G. TOSTI, M. NORI, S. FUNK, "Unveiling the nature of the unidentified gamma-ray sources. III. Gamma-ray blazar-like counterparts at low radio frequencies", The Astrophysical Journal Supplement, 2013, vol. 207, no. 1, pp. 4

Proceedings/Presentations

Towards a Bottom-Up Approach to Space Debris Removal: On the Economic Convenience Behind Debris Mitigation Strategies
DI PIPPO, S., C. IACOMINO, A. ROSSI, M. NORI, A. SAPUTO, F. VENTRE, F. COLANTONI, "Towards a Bottom-Up Approach to Space Debris Removal: On the Economic Convenience Behind Debris Mitigation Strategies" in 74th International Astronautical Congress – 'Global Challenges and Opportunities: Give Space a Chance' - 2-6 October, 2023, Baku, Azerbaijan

Long term effects of the mitigation and remediation measures in view of the changing space activities
ROSSI, A., C. IACOMINO, A. SAPUTO, M. NORI, F. COLANTONI, F. VENTRE, "Long term effects of the mitigation and remediation measures in view of the changing space activities" in Second International Orbital Debris Conference (IOC II), December 4–7, 2023, Sugar Land, TX, United States of America